

### **REMARKS**

Claims 1-20 are pending in the application. Claims 1, 3 and 16 have been amended.

The Examiner objected to the drawings under 37 CFR §1.83(a). To address the Examiner's concerns that the light sensor, voltage detecting circuit and current monitoring circuit are not shown in the Drawings, Applicant proposes amendments to Figure 1. Those proposed amendments are made in red. No new matter has been added. The specification has also been amended to correspond to the proposed drawing changes. No new matter has been added.

Claims 1-20 were rejected under 35 USC §102(e) as being anticipated by US Patent No. 6388399 *Eckel*. The present invention relates to the field of traffic signals and more specifically to an LED traffic signal module. There is no mention of traffic signal in *Eckel*. *Eckel's* circuitry is for building automation. There is specifically no mention of traffic signals in column 10, lines 23-31 referred by the Examiner. *Eckel's* voltage source (70) is used to power internal or external low voltage control circuitry (column 10, line 23-31) and not to continuously supply a voltage to a traffic signal.

In the field of traffic signaling, it is important to be able to monitor the status of the light element. In order to do, voltage across the light source, current through the light source, light output emitted by the light source, module input voltage and module input current are important parameters to monitor. It is the purpose of the present invention to be able to monitor these parameters and to generate status signals accordingly. *Eckel's* circuitry does not monitor these parameters.

Since *Eckel's* invention is not intended for the field of traffic signaling, but for building automation, none of these parameters are monitored. The light sensor (450) in *Eckel's* figure 18 measures ambient light and not light emitted by a specified light source, such as a traffic signal. The voltage detecting circuit (62) is used to monitor the voltage of the power supply. It does not monitor the voltage directly across the light source or across a traffic signal module. *Eckel* in column 5, line 50-51 mentions the ability to monitor "changes in power current or voltage and to determine if lamps have been burned out". The present invention precisely monitors current flowing through the light source and not only "changes" in current or voltage. The monitoring in *Eckel* is periodic, not continuous. See, for example, *Eckel* at Col. 9, lines 10-13.

Independent Claims 1 and 16 are traffic signals and are not taught or suggested by *Eckel*. For example, claims 1 and 16 both include limitations that there is "a light sensor for detecting light output of the at least one light element (Claim 1) or at least one LED array (Claim 16). *Eckel* does not teach or suggest a traffic signal with all the limitations of the claims

including a light sensor that monitors the lamp. The light sensor in *Eckel* does not monitor a lamp. It only monitors ambient light. Similarly, *Eckel* does not teach or suggest a traffic signal with all the limitations of the independent Claims including a voltage monitor that monitors light element voltage and a current monitor that monitors light element current. Thus, the claims are not taught or suggested by *Eckel*.

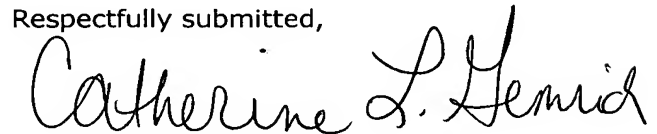
Claim 9 includes limitations related to an emergency disconnect. The momentary disconnect in *Eckel* cannot be equated with the emergency disconnect of the present invention. *Eckel's* momentary disconnect in column 10, line 31-35 is a momentary contact switch to momentarily disconnect the external power supply. In the present invention, the emergency disconnect is the opening of a fuse and is permanent.

*Eckel* does not teach or suggest a traffic signal with all the limitations of the claims. Accordingly claims 1-20 are patentable.

#### **CONCLUSION**

Applicant asserts that all of the objections have been obviated and, therefore now respectfully requests withdrawal of the objections, and allowance of the application.

Respectfully submitted,

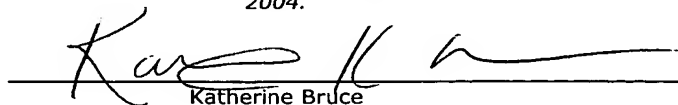


Catherine L. Gemrich  
Attorney for Applicant  
Registration Number 50473

DRUM & ROTH LLC  
53 WEST JACKSON BOULEVARD  
CHICAGO, ILLINOIS 60604-3606  
TELEPHONE: 312.922.6262  
FAX: 312.922.7747

#### **CERTIFICATE OF MAILING**

*I hereby certify that this correspondence is being deposited with the United States Postal Service as First Class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Alexandria, VA 22313-1450, on November 23, 2004.*



Katherine Bruce